

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	257/9.cclc.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 12:14
		257/p.cclc.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 12:14
		(257/9.ccls.).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/10/05 12:14
		schottky near10 ((emitter near base) or emitter/base or emitter) and collector near10 ((collector near base) or collector/base or collector)(and bjt and bipolar near junction near transistor and base and @ad<"20021213"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 15:27
		schottky same emitter and tunnel\$3 same collector and spin and valve and transistor and	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 20:53
L2	81739	"5747859".pn. and tantalum near oxide or zinc near sulfide or zirconium near oxide or rare near earth near oxide or yttrium near oxide	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:05
L3	0	"5747859".pn. and (tantalum near oxide or zinc near sulfide or zirconium near oxide or rare near earth near oxide or yttrium near oxide)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:40

## EAST Search History

L4	0	"5747859".pn. and tantalum	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:06
L5	0	"5747859".pn. and zinc	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:06
L6	0	"5747859".pn. and zirconium	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:06
L7	0	"5747859".pn. and yttrium	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:06
L8	1	"5747859".pn. and oxide	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:06
L9	6	(US-20050024788-\$).did. or (US-6069820-\$ or US-6963121-\$ or US-6473275-\$ or US-6611405-\$ or US-6501143-\$).did.	US-PGPUB; USPAT	OR	ON	2006/10/13 21:40
L10	0	I9 and (tantalum near oxide or zinc near sulfide or zirconium near oxide or rare near earth near oxide or yttrium near oxide)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:41
L11	1	spin-valve near transistor and (tantalum near oxide or zinc near sulfide or zirconium near oxide or rare near earth near oxide or yttrium near oxide)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:41

## EAST Search History

L12	0	transistor and (tunnel tunneling) and shottky near diode and (tantalum near oxide or zinc near sulfide or zirconium near oxide or rare near earth near oxide or yttrium near oxide)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:42
L13	939132	transistor (tantalum near oxide or zinc near sulfide or zirconium near oxide or rare near earth near oxide or yttrium near oxide)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:42
L14	8798	transistor and (tantalum near oxide or zinc near sulfide or zirconium near oxide or rare near earth near oxide or yttrium near oxide)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:42
L15	123	schottky near diode and transistor and (tantalum near oxide or zinc near sulfide or zirconium near oxide or rare near earth near oxide or yttrium near oxide)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:43
L16	28	schottky near diode and transistor and (tantalum near oxide or zinc near sulfide or zirconium near oxide or rare near earth near oxide or yttrium near oxide) and tunnel	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:45
L17	23666642	@ad<"20021213" @rlad<"20021213"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:43
L18	22	l17 and l16	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:45
L19	2	("5640343").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/10/13 21:45

## EAST Search History

L20	0	l19 and (tantalum near oxide or zinc near sulfide or zirconium near oxide or rare near earth near oxide or yttrium near oxide) and tunnel	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:45
L21	0	l19 and (tantalum near oxide or zinc near sulfide or zirconium near oxide or rare near earth near oxide or yttrium near oxide)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:46
L22	0	l19 and (tantalum zinc zirconium yttrium )	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:46
L23	9431	(insulator insulation insulating) same (tantalum near oxide or zinc near sulfide or zirconium near oxide or rare near earth near oxide or yttrium near oxide)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:46
L24	168	(insulator insulation insulating) same (tantalum near oxide or zinc near sulfide or zirconium near oxide or rare near earth near oxide or yttrium near oxide) same (tunneling tunnel tunnel-effect) and l17	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:47
L25	23	(insulator insulation insulating) same (tantalum near oxide or zinc near sulfide or zirconium near oxide or rare near earth near oxide or yttrium near oxide) same (tunneling tunnel tunnel-effect) and l17 and emitter	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:48
L26	7	(insulator insulation insulating) same (tantalum near oxide or zinc near sulfide or zirconium near oxide or rare near earth near oxide or yttrium near oxide) same (tunneling tunnel tunnel-effect) and l17 and emitter and collector and base	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 21:49

## EAST Search History

L27	1	(insulator insulation insulating) same (tantalum near oxide or zinc near sulfide or zirconium near oxide or rare near earth near oxide or yttrium near oxide) same (tunneling tunnel tunnel-effect) and l17 and emitter and collector and base and schottky	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 22:41
L28	713	metallic near collector	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 22:41
L29	25	metallic near collector and schottky diode and (tunnel tunneling) and barrier and (spin adj valve adj transistor)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 22:42
L30	21	metallic near collector and schottky diode and (tunnel tunneling) and barrier and (spin adj valve adj transistor) and l17	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 22:53
L31	4257	metallic with collector and schottky diode and (tunnel tunneling) and barrier and l17	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 22:54
L32	4901	(metallic metal) with collector and schottky diode and (tunnel tunneling) and barrier and l17	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 22:54
L33	1444	(metallic metal) with collector and schottky diode and (tunnel tunneling) and barrier and l17 and transistor and emitter and base	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 22:56
L34	1020	(metallic metal) with collector and schottky diode and (tunnel tunneling) and barrier and l17 and transistor and emitter and base and spin	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 22:56

## EAST Search History

L35	4	(metallic metal) with collector and schottky near diode and (tunnel tunneling) and barrier and I17 and transistor and emitter and base and spin	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 23:03
L36	4	(metallic metal) with collector and schottky near diode and (tunnel tunneling) and barrier and I17 and transistor and emitter and base and spin and (insulation insulator dielectric)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 23:03
L37	4	(metallic metal) with collector and schottky near diode and (tunnel tunneling) and barrier and I17 and transistor and emitter and base and spin and (insulation insulator dielectric insulating)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 23:14
L38	104	(metallic metal) same collector and schottky and (tunnel tunneling) and barrier and I17 and transistor and emitter and base and (insulation insulator dielectric insulating)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 23:14
L39	131	(metallic metal) same collector and schottky and (tunnel tunneling) and I17 and transistor and emitter and base and (insulation insulator dielectric insulating)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 23:46
L40	11	("20030122208" "20030214004" "5371378" "5747859" "6069820").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/13 23:46
L41	5	("20030122208" "20030214004" "5371378" "5747859" "6069820").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/10/13 23:48
L42	953	emitter and collector and base and schottky and (insulating insulator dielectric) and electrode and I17	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/10/14 00:00
L43	70	emitter same collector same base same schottky same (insulating insulator dielectric) same electrode and I17	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/10/14 00:03

## EAST Search History

L44	2	emitter same collector same base same schottky same (insulating insulator insulation dielectric) with (tunnel tunneling) same electrode and l17	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/10/14 00:03
L45	2	emitter same collector same base with schottky same (insulating insulator insulation dielectric) with (tunnel tunneling) same electrode and l17	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/10/14 00:08
L46	5	emitter same collector same base with schottky same (tunnel tunneling) same electrode and l17	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/10/14 00:08
L47	13301313	emitter same collector same base with schottky same (tunnel tunneling) l17	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/10/14 00:08
L48	13301301	emitter same collector same base with schottky same (insulation insulator insulating) with (tunnel tunneling) l17	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/10/14 00:11
L49	5	emitter same collector same base with schottky same (insulation insulator insulating) with (tunnel tunneling) and l17	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/10/14 00:15
L50	1381	emitter same collector same base and schottky and (insulation insulator insulating dielectric) and l17	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/10/14 00:16
L51	91	emitter same collector same base and schottky and (insulation insulator insulating dielectric) and (electrode contact) near top and l17	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/10/14 00:33
L52	2	("20020121647").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/10/14 00:24

## EAST Search History

L53	20	emitter same collector same base and schottky and (insulation insulator insulating dielectric) and (electrode contact) near top and l17 and spin	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/10/14 00:35
L54	1	"20020121647".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/10/14 00:35
S1	5	((("60369820") or ("2003214004") or ("2003122208"))).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/26 16:23
S2	0	((("60369820") or ("2003214004") or ("2003122208"))).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/04/26 16:23
S3	1	((("6069820") or ("2003214004") or ("2003122208"))).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/04/26 16:24
S4	1	("6069820").PN. or ((2003/214004) or (2003/122208)).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/04/26 16:24
S5	1	((("6069820") or ("2003214004") or ("2003122208"))).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/04/26 17:08
S6	1	(sato near rie).in. and "20031120".pd.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/26 17:08
S7	3	((("6069820") or ("20030214004") or ("20030122208"))).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/04/26 17:15
S8	1	("20020000575").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/04/26 17:13
S9	1	("2002/0000575").URPN.	USPAT	OR	ON	2006/04/26 17:13
S10	26	(rie near sato).in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/26 18:01



## EAST Search History

S11	758	(spin near valve or (spin-valve)) and transistor	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/26 18:01
S12	101	(spin near valve or (spin-valve)) and transistor and emitter and collector and base	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/26 18:02
S13	8	(spin near valve or (spin-valve)) and transistor and emitter and collector and base and schottky near diode and tunnel and effect and barrier	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/26 18:18
S14	33	(spin near valve or (spin-valve)) and transistor and emitter and collector and base and schottky and tunnel and effect and barrier	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/26 18:59
S15	10	"6501143"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/26 19:12
S16	21	"5973334"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/26 19:54
S17	9	"5973334" and schottky and tunnel	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/26 19:56
S18	25	schottky near10 ((emitter near base) or emitter/base) and tunnel	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/26 19:57

## EAST Search History

S19	393	schottky near10 ((emitter near base) or emitter/base)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/26 19:57
S20	347	schottky near10 ((emitter near base) or emitter/base) and collector	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/26 19:57
S21	215	schottky near5 ((emitter near base) or emitter/base) and collector	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/26 19:57
S22	28	schottky near ((emitter near base) or emitter/base) and collector	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 15:25
S23	0	("2006/0049474").URPN.	USPAT	OR	ON	2006/04/26 20:40
S24	1	schottky near ((emitter near base) or emitter/base) and tunnel\$3 near collector and spin and valve and transistor	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/26 20:43
S25	12	schottky same emitter and tunnel\$3 same collector and spin and valve and transistor and @ad<"20021213"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 12:55
S26	18	tunnel\$3 same collector and spin and valve and transistor and @ad<"20021213"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 12:55
S27	17	tunnel\$3 same collector and spin and valve and transistor and @ad<"20021213" and emitter and base	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 13:03

## EAST Search History

S28	2	("6919608").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/27 13:03
S29	2	(jinbo near mutsuko).in. and spin	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 13:20
S30	34	parkin.in. and spin near valve	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 15:19
S31	2	tunnel\$3 near emitter and spin near valve near transistor and schottky near collector and base	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 15:21
S32	13	tunnel\$3 and emitter and ((spin near valve) or spin-valve) near transistor and schottky and collector and base and @ad<"20021213"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 15:23
S33	11	schottky near10 ((emitter near base) or emitter/base or emitter) and collector near10 ((collector near base) or collector/base or collector) and bjt and bipolar near junction near transistor and base and @ad<"20021213"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 15:27
S34	0	schottky near10 ((emitter near base) or emitter/base or emitter) and tunnel\$3 near10 ((collector near base) or collector/base or collector) and bjt and bipolar near junction near transistor and base and @ad<"20021213"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 15:27
S35	0	schottky same ((emitter near base) or emitter/base or emitter) and tunnel\$3 same ((collector near base) or collector/base or collector) and bjt and bipolar near junction near transistor and base and @ad<"20021213"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 15:28

## EAST Search History

S36	0	schottky same emitter and tunnel\$3 same collector and bjt and bipolar near junction near transistor and base and @ad<"20021213"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 15:29
S37	1	schottky same emitter and tunnel\$3 same collector and bjt and base and @ad<"20021213"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 17:05
S38	6	emitter with collector with (switching switch switched reverse reversed reversing) with "skill"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 15:35
S39	8	schottky near barrier and emitter and tunneling near barrier and collector and transistor and bipolar and junction and (insulator insulation) and base and @ad<"20021213"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 17:25
S40	3	"5371378" and skills	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 17:31
S41	0	"5371378" and skill same ordinary same art same emitter same collector	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 17:32
S42	1	"5371378" and skill same emitter same collector	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 18:17
S43	3087	360/324.1,324.11,324.12,324.2. ccls. or 257/423,427,421,e29.042, e29.167,e29.006,e29.179,e29.241, e29.323.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 18:18

## EAST Search History

S44	1750	360/324.1,324.11,324.12,324.2. ccls. or 257/423,427,421,e29.042, e29.167,e29.006,e29.179,e29.241, e29.323.ccls. and (spin-valve or spin near valve ) near transistor	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 18:19
S45	1745	360/324.1,324.11,324.12,324.2. ccls. or 257/423,427,421,e29.042, e29.167,e29.006,e29.179,e29.241, e29.323.ccls. and (spin-valve or spin near valve ) near transistor and collector and base and emitter and schottky and.tunnel\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 18:19
S46	1739	360/324.1,324.11,324.12,324.2. ccls. or 257/423,427,421,e29.042, e29.167,e29.006,e29.179,e29.241, e29.323.ccls. and (spin-valve or spin near valve ) near transistor and collector and base and emitter and schottky and tunnel\$3 and @ad<"20021213"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 18:20
S47	1739	360/324.1,324.11,324.12,324.2. ccls. or 257/423,427,421,e29.042, e29.167,e29.006,e29.179,e29.241, e29.323.ccls. and ((spin-valve) or (spin near valve) ) near transistor and collector and base and emitter and schottky and tunnel\$3 and @ad<"20021213"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 18:20
S48	9	(360/324.1,324.11,324.12,324.2. ccls. or 257/423,427,421,e29.042, e29.167,e29.006,e29.179,e29.241, e29.323.ccls.) and ((spin-valve) or (spin near valve) ) near transistor and collector and base and emitter and schottky and tunnel\$3 and @ad<"20021213"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/27 18:20
S49	1411	emitter same base same (schottky near (diode or junction))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 11:50
S50	16720	collector same base same (dielectric or insulat\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 11:51

## EAST Search History

S51	59103	"I2" and "I3"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 11:51
S52	229	S49 and S50	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 11:51
S53	43	S52 and tunnel\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 11:51
S54	10	S52 and ferromagnetic	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 11:51
S55	469059	"257"/\$.ccls. "360"/\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 11:52
S56	1818	257/38,47,421,474,479,e27.006, e29.185.ccls. "360324""1.""324"" ""2,314".ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 11:52
S57	2877	257/38,47,421,474,479,e27.006, e29.185.ccls. 360/324.1,324.2,314. ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 11:53
S58	23663652	@ad<"20021213" @rlad<"20021213"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 11:53

## EAST Search History

S59	198	S58 and S52	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 11:55
S60	2	("20060049474").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/10/05 12:13
S61	270	257/9.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 12:24
S62	644	360/324.1,324.3,314.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 12:24
S63	548	360/324.1,324.3,314.ccls. and (spin near valve spin-valve)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 12:24
S64	548	360/324.1,324.3,314.ccls. and (spin near valve spin-valve) and S55	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 12:25
S65	410	360/324.1,324.3,314.ccls. and (spin near valve spin-valve) and S58	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 12:26
S66	1	360/324.1,324.3,314.ccls. and (spin near valve spin-valve) and S58 and S49 and S50	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 12:49

## EAST Search History

S67	29	"257474"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 12:49
S68	76	257/474	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 12:49
S69	28	257/479	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 12:49